FIG. 1

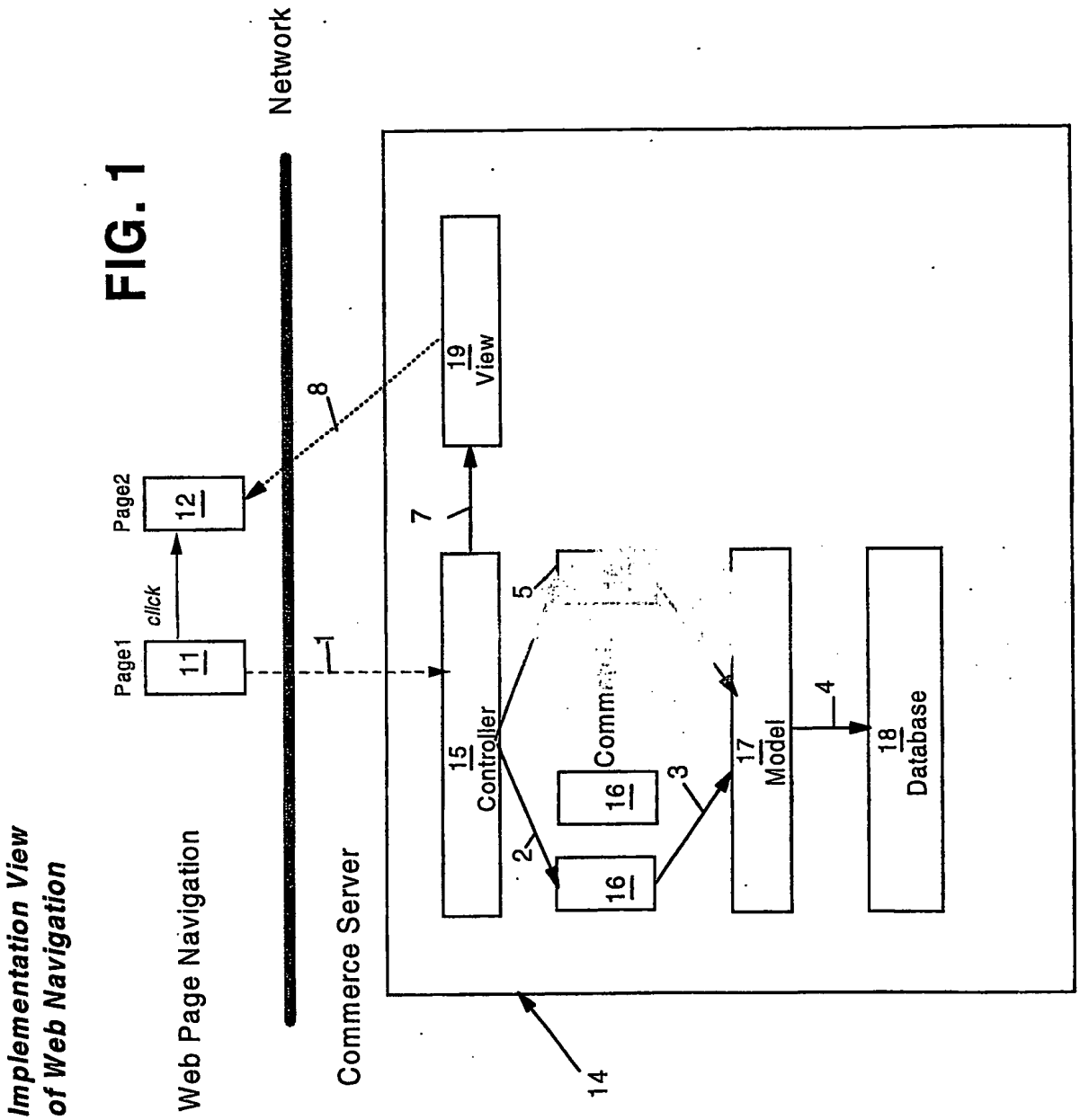
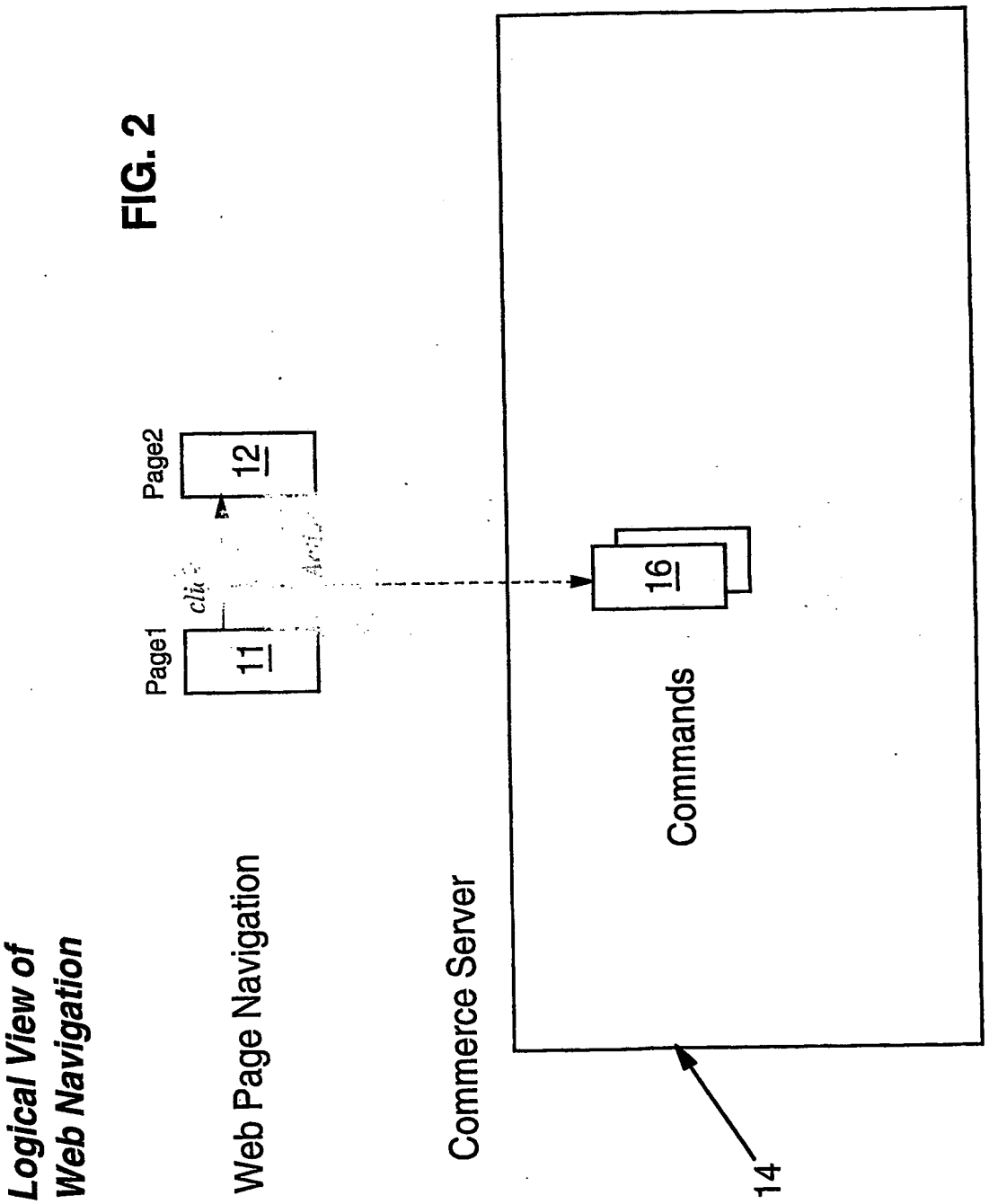

Implementation View
of Web Navigation
Web Page Navigation
Commerce Server
Network
Page1
click
11
Page2
12
1
8
19
View
7
15
Controller
5
Comm
16
16
2
3
17
Model
4
18
Database
14

FIG. 2


Logical View of Web Navigation
Web Page Navigation
Page1
11
clic
Page2
12
Commerce Server
Commands
16
14

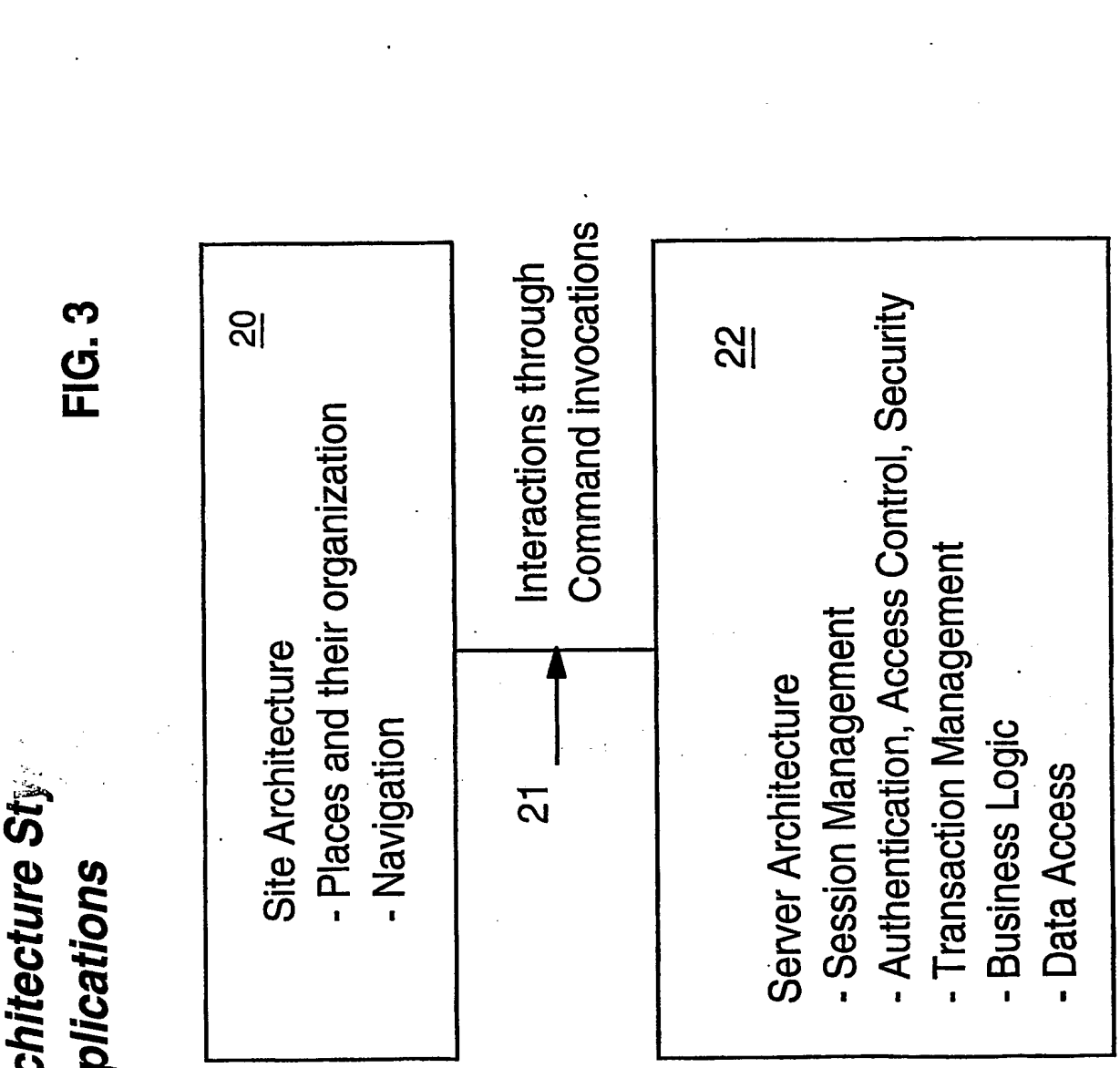

Layered Architecture Style
for Web Applications
FIG. 3
20
Site Architecture
- Places and their organization
- Navigation
21
Interactions through
Command invocations
22
Server Architecture
- Session Management
- Authentication, Access Control, Security
- Transaction Management
- Business Logic
- Data Access

FIG. 4

Containment Hierarchy of a Site

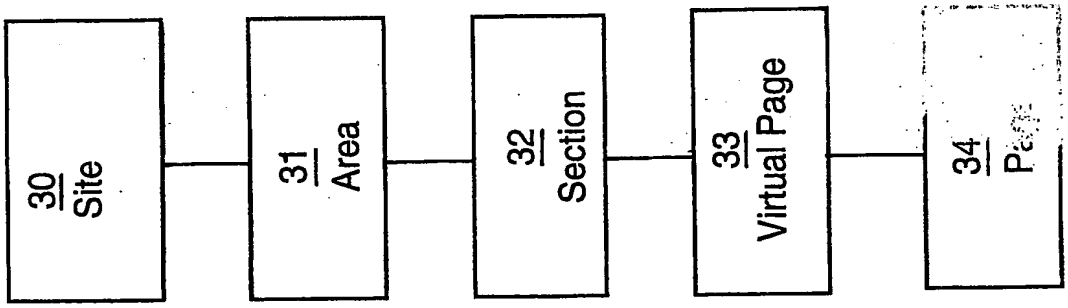
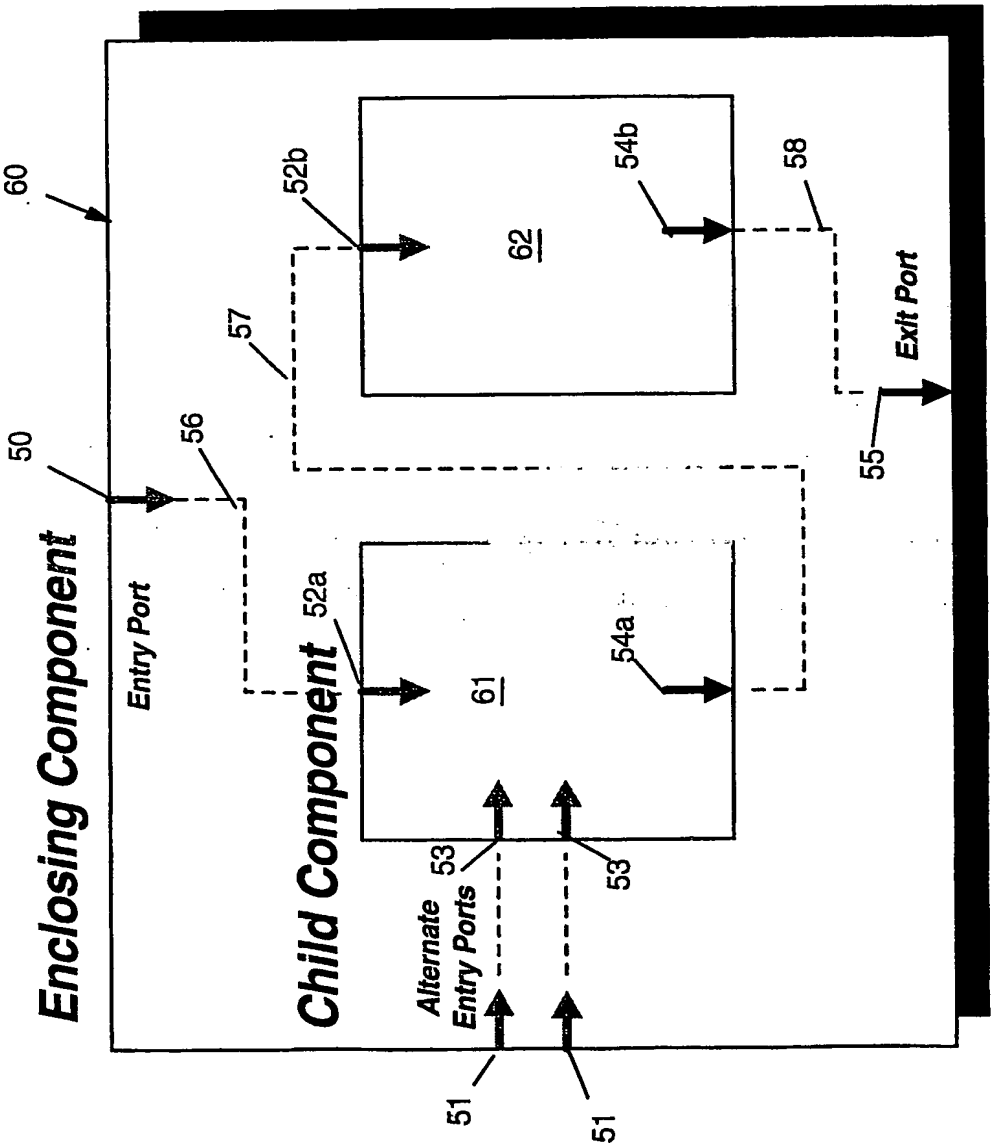


FIG 5


Enclosing Component
Child Component
Entry Port
Exit Port
Alternate Entry Ports
60
50
56
57
52b
54b
58
62
55
52a
54a
61
53
53
51
51

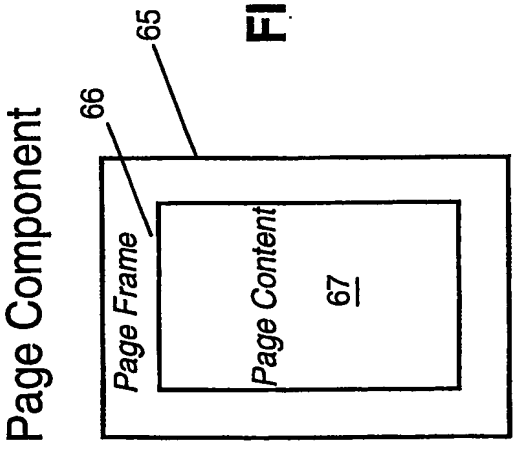


FIG. 6

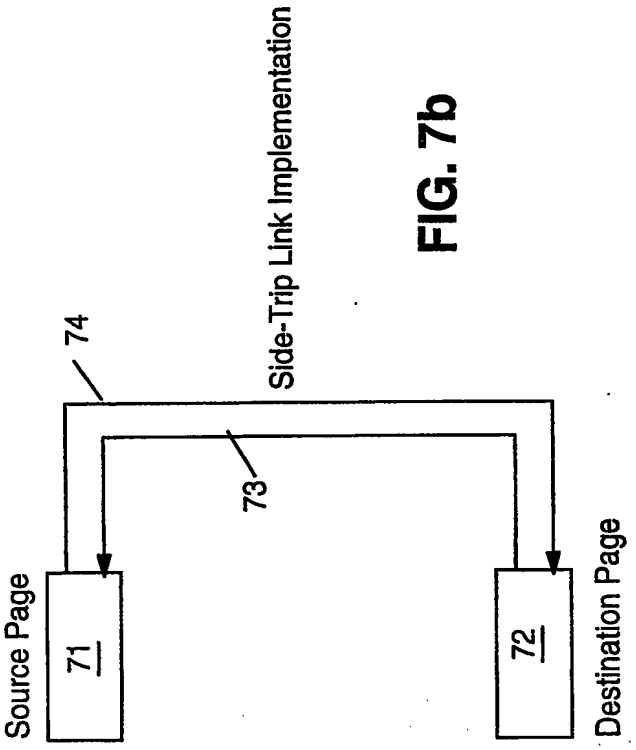


FIG. 7b

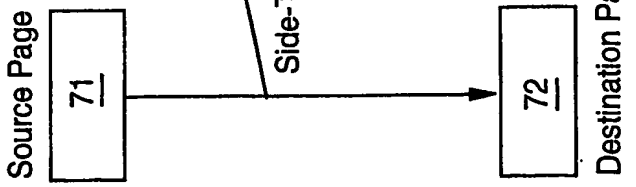


FIG. 7a

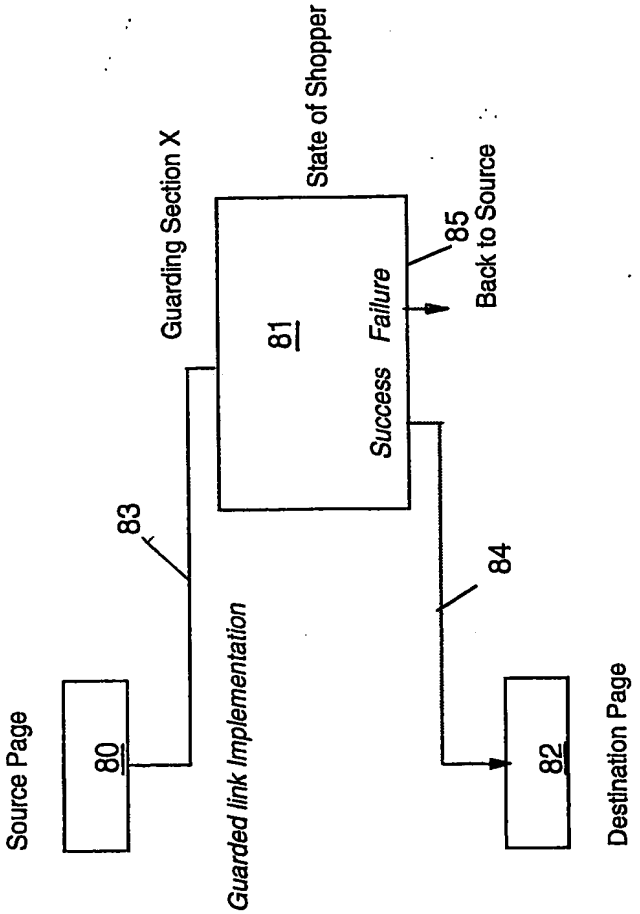

Source Page
80
Guarded link Implementation
83
Guarding Section X
State of Shopper
81
Success
Failure
85
Back to Source
84
82
Destination Page

FIG. 8b

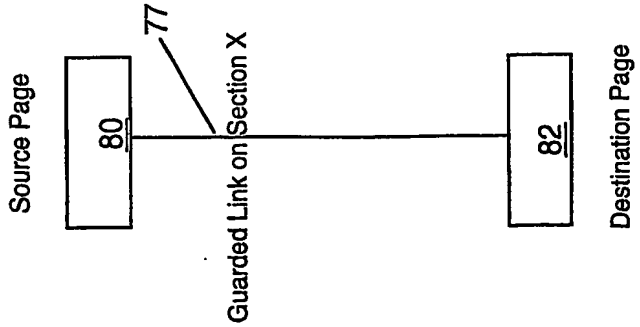

Source Page
80
77
Guarded Link on Section X
82
Destination Page

FIG. 8a

FIG. 9

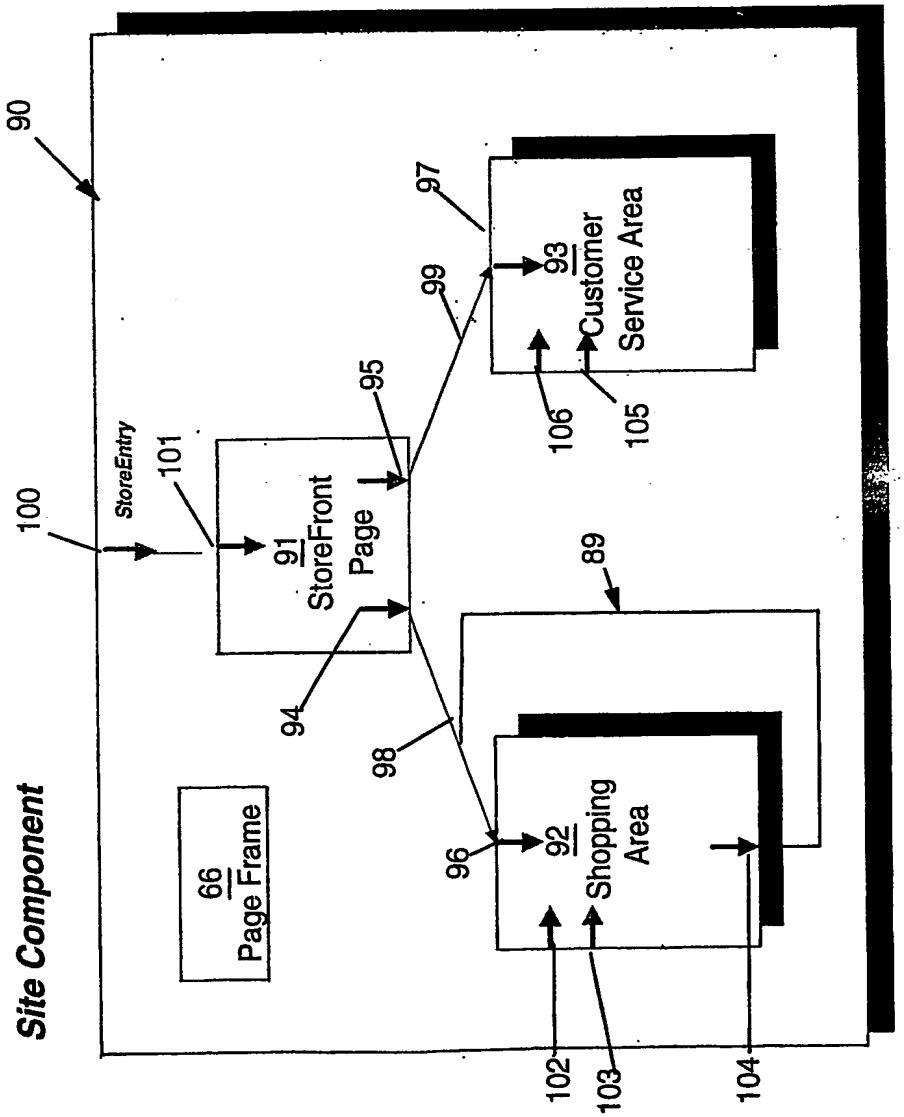

Site Component
90
100
StoreEntry
101
91
StoreFront
Page
66
Page Frame
89
92
Shopping
Area
93
Customer
Service Area
94
95
96
97
98
99
102
103
104
105
106

FIG. 10

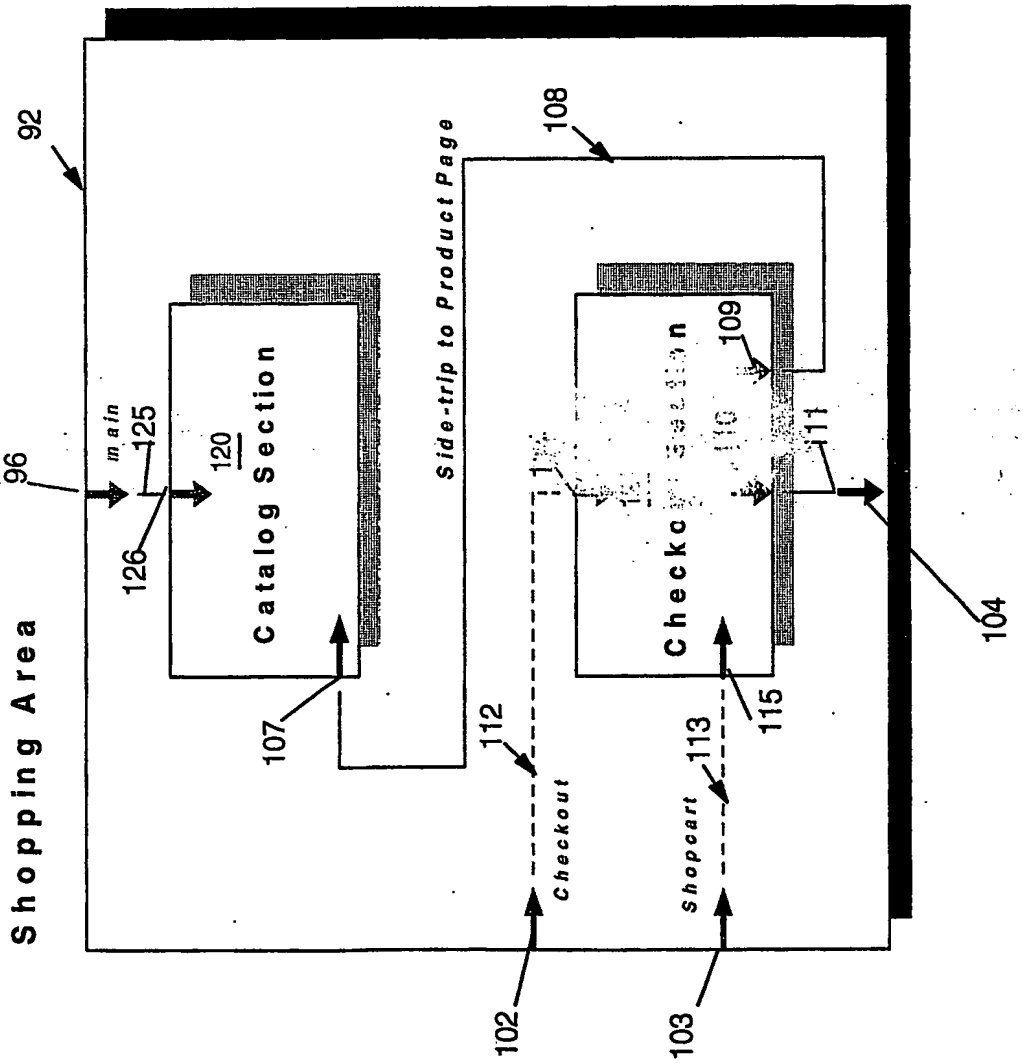

92
108
Side-trip to Product Page
96
main
125
120
Catalog Section
126
107
109
111
104
112
113
115
Checkout
Shopcart
102
103
Shopping Area

FIG. 11

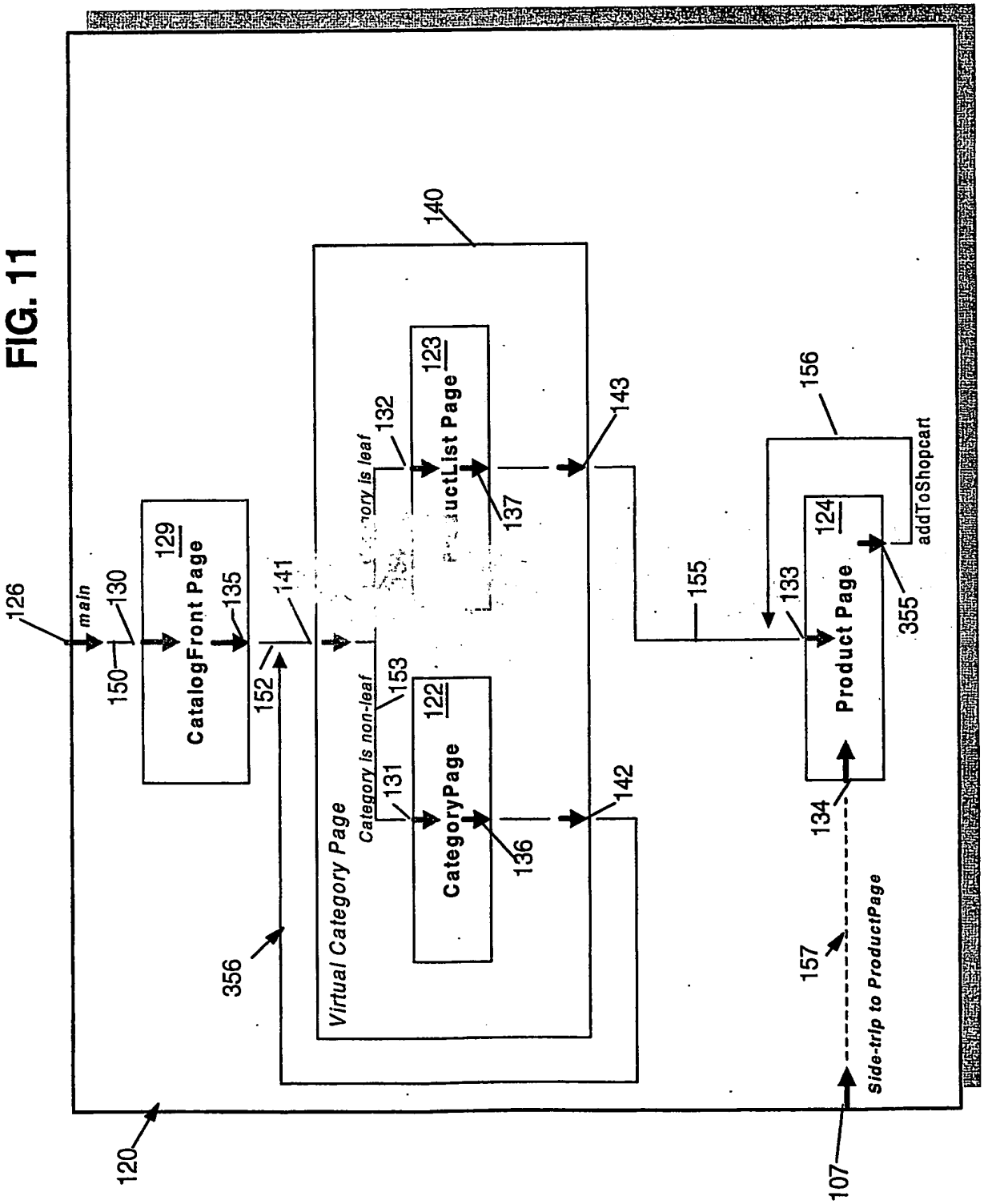

126
main
130
150
129
CatalogFront Page
135
152
141
140
Virtual Category Page
Category is non-leaf
153
131
122
CategoryPage
136
142
356
120
ory is leaf
132
123
uctList Page
137
143
155
156
133
124
Product Page
134
addToShopcart
355
157
Side-trip to ProductPage
107

FIG. 12

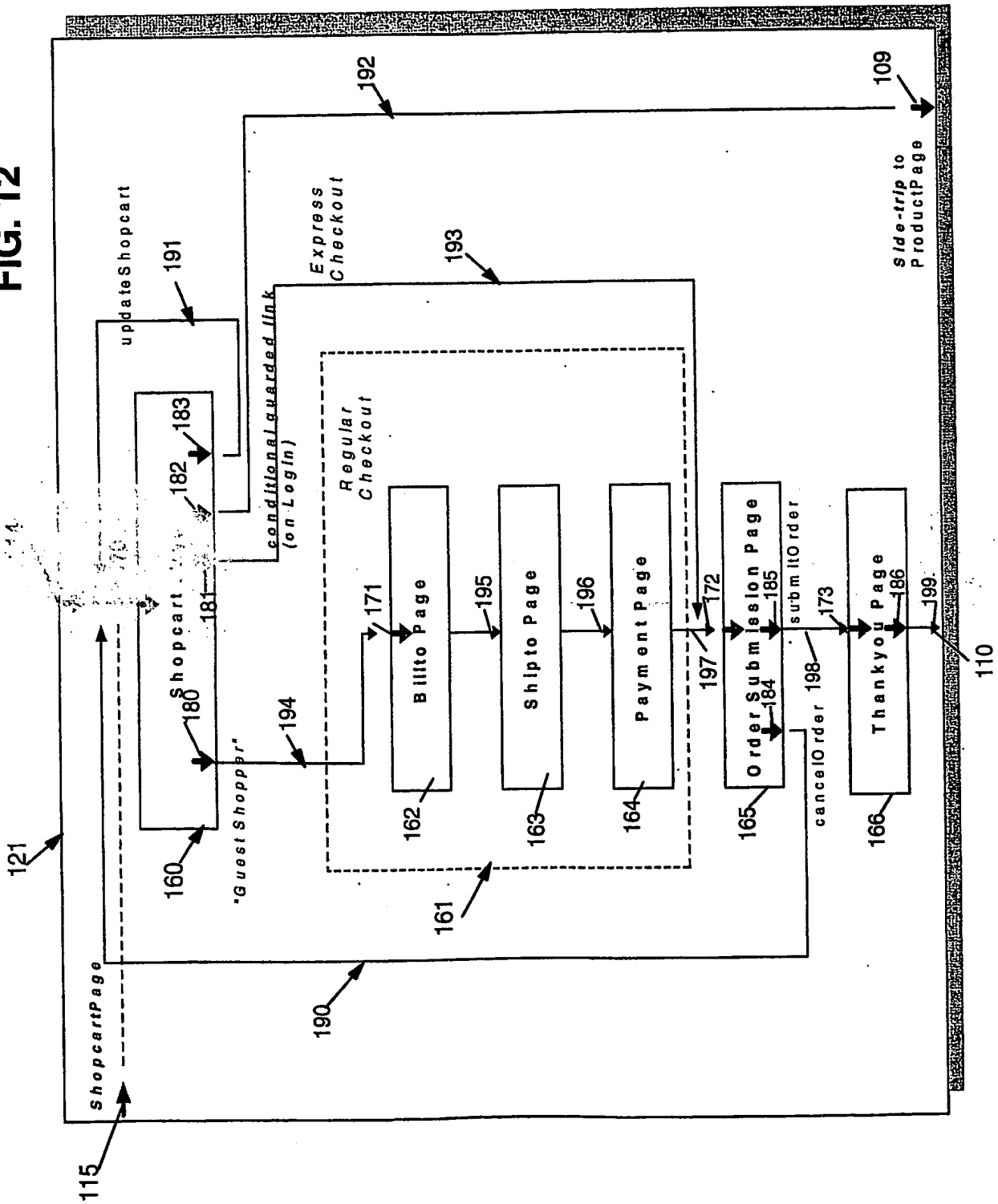

updateShopcart
191
Express Checkout
193
Side-trip to ProductPage
109
192
conditional guarded link (on Login)
Regular Checkout
183
182
181
Shopcart
180
"Guest Shopper"
194
171
Billto Page
195
Shipto Page
196
Payment Page
172
197
Order Submission Page
185
submitOrder
173
Thankyou Page
186
199
110
184
cancelOrder
198
162
163
164
165
166
160
161
121
190
ShopcartPage
115

FIG. 13

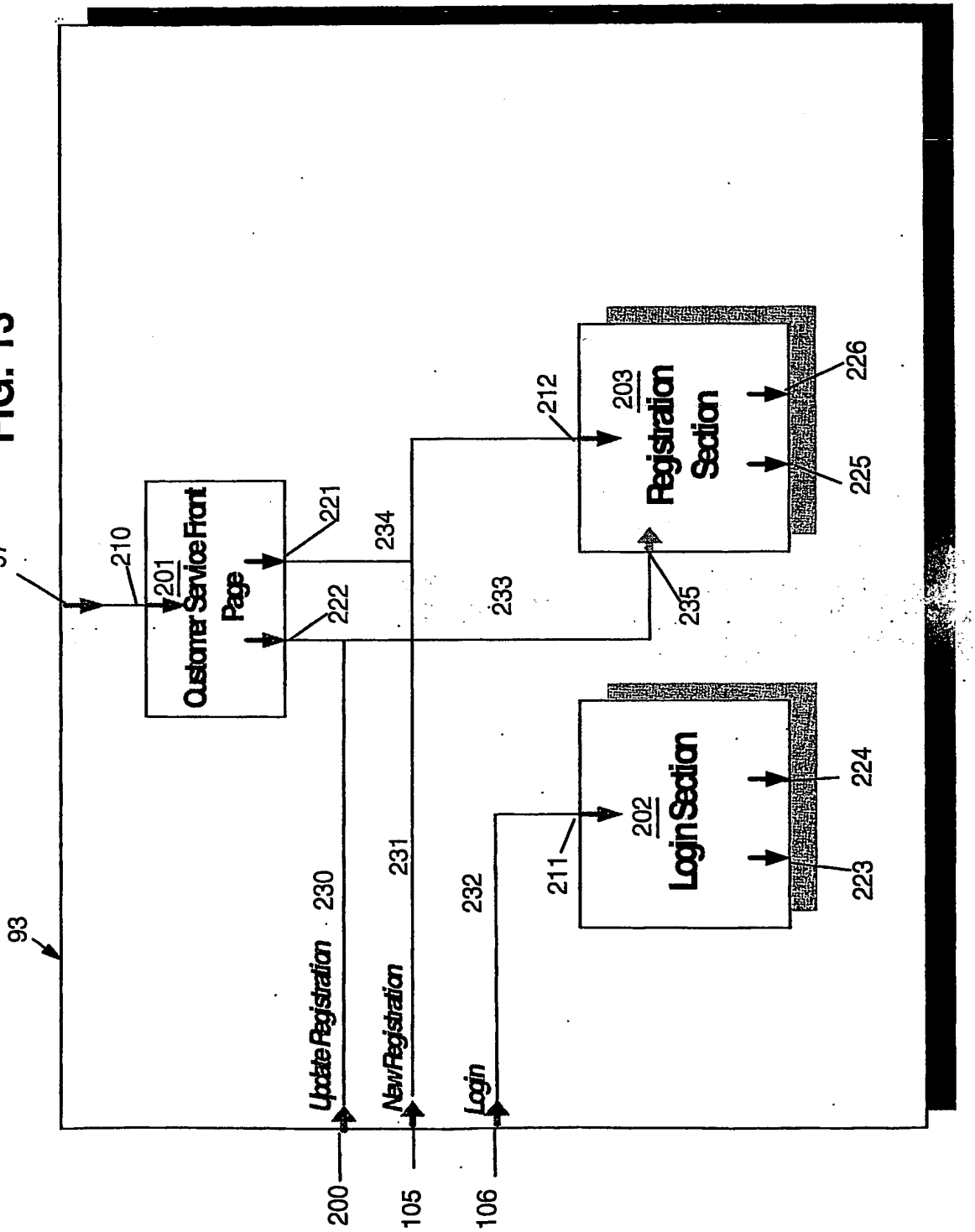

93
97
210
201
Customer Service Front Page
221
222
234
233
212
203
Registration Section
226
225
235
211
202
Login Section
224
223
230
231
232
Update Registration
New Registration
Login
200
105
106

FIG. 14

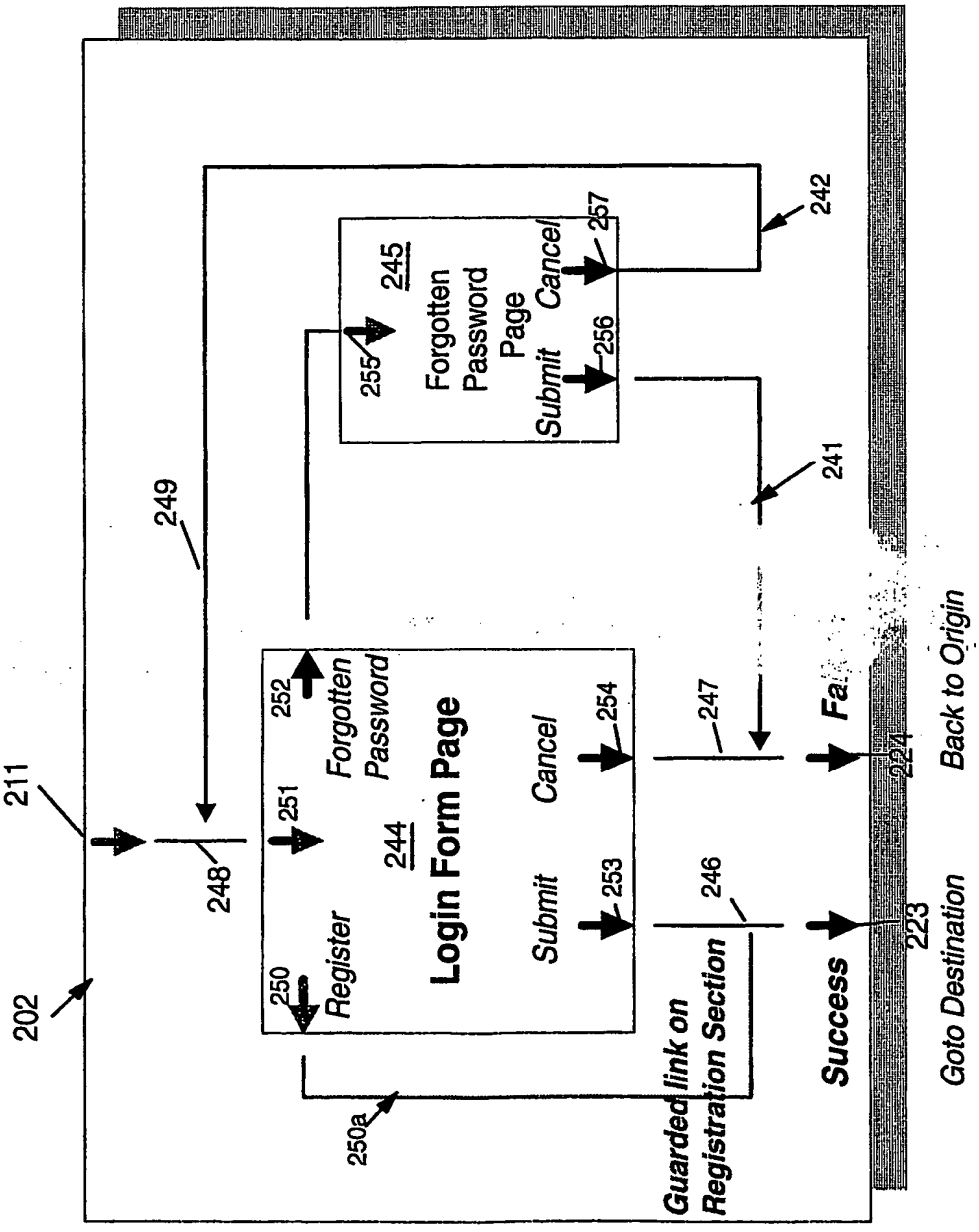
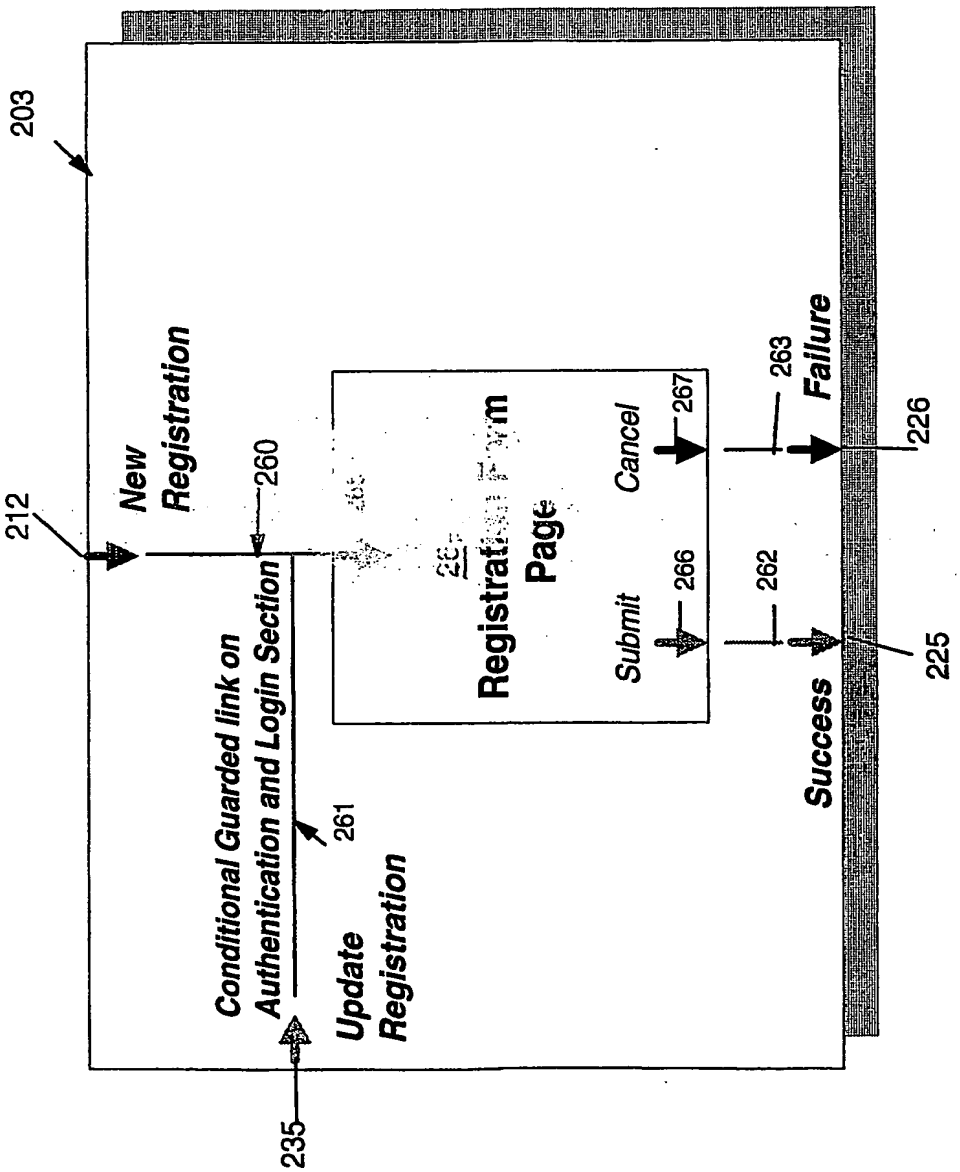

202
211
248
249
250
Register
251
252
Forgotten Password
244
Login Form Page
Submit
253
Cancel
254
246
247
250a
Guarded link on Registration Section
255
245
Forgotten Password Page
Submit
256
Cancel
257
242
241
Success
223
Goto Destination
Fa
224
Back to Origin

FIG. 15


203
212
New Registration
260
Conditional Guarded link on Authentication and Login Section
261
Update Registration
235
Registration Form Page
Submit
266
Cancel
267
262
263
Failure
226
Success
225

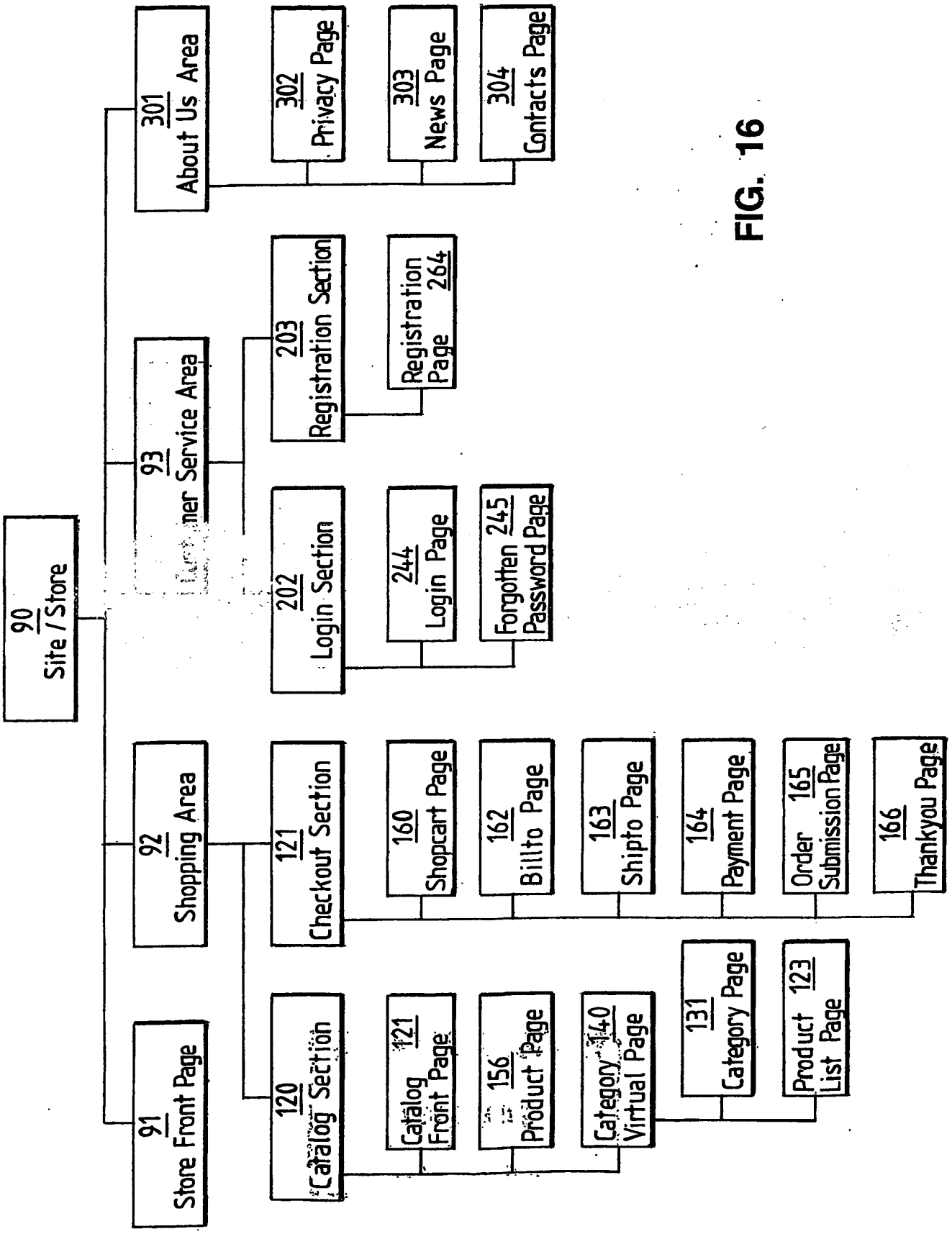

90 Site / Store
91 Store Front Page
92 Shopping Area
93 Customer Service Area
301 About Us Area
120 Catalog Section
121 Checkout Section
202 Login Section
203 Registration Section
302 Privacy Page
303 News Page
304 Contacts Page
121 Catalog Front Page
156 Product Page
140 Category Virtual Page
131 Category Page
123 Product List Page
160 Shopcart Page
162 Billto Page
163 Shipto Page
164 Payment Page
165 Order Submission Page
166 Thankyou Page
244 Login Page
245 Forgotten Password Page
264 Registration Page

FIG. 16